layout for living
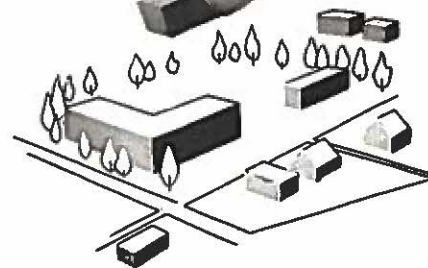
Planning for half a million houses

by Humphrey Carver

We have been told by the Minister of Reconstruction that during the next five years nearly half-a-million houses should be built in Canada. The gigantic proportions of our undertaking may be judged from the fact that if all these houses were built in one straight row, they would stretch from Halifax to Vancouver (480,000 houses on 35 foot lots would have a frontage of 3,101 miles). It may cheer us up to realize that the housing units built in Canada during 1946, if put on 35 foot lots, would more than span the distance between Toronto and Montreal. But there is a long way to go yet. Our housing program is, in fact, an undertaking only comparable with the construction of a transcontinental railway. Can we count on completing it in five years? After all, our first transcontinental railway *was* built in about five years—and that was sixty years ago.

If all the houses we need could be built in a straight line like a railway, the operation could be quickly and economically accomplished, because the delivery and assembly of the structural parts might be carried out in a systematic way, with construction teams moving along to install each item as delivered. (Each house contains about 30,000 separate pieces or about six times as many as the average automobile.) With such straight-line assembly each house as it was completed could be connected up with street services, power, water and sewers.

But this is a fantasy. The reality is that the half million houses have to be built in widely separated areas. The thirty thousand parts in each house have to be assembled—not on one straight assembly line—but on half a million separate building sites. Yet though a straight assembly-line for housebuilding is a fantasy, many measures can be introduced to accelerate our housebuilding program by "streamlining" our construction methods. These measures will be essentially like those familiar in the modern industrial quantity-production process. To get the job done we shall have to eliminate the waste of energy and material that accompanies our present kind of scattered and piecemeal building.

community planning association of canada, ottawa
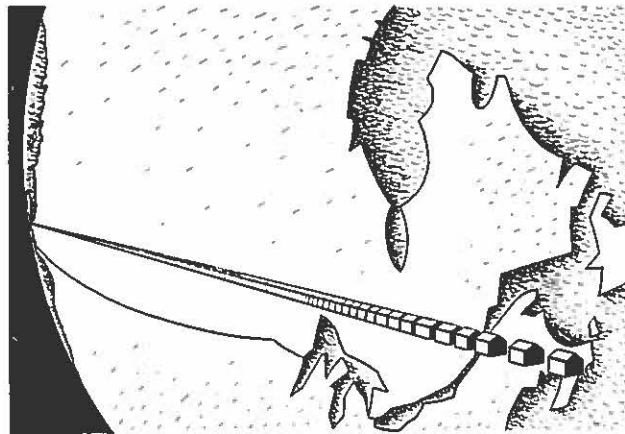
The marvels of production achieved by the automotive assembly line have naturally led to the belief that houses could also be prefabricated in a factory and the finished product then taken on a truck and laid down on the lot. This idea has obvious merits: we all await the practical results of the great English and American ventures in prefabricated housing, for in 1947 they may possibly herald a new epoch in the whole housebuilding business. These great housing experiments, if successful, can change our surroundings and habits even more than did the products of the automotive assembly line.

But in many ways production of houses can never be quite like the factory production of cars. An automobile, when it leaves the factory on its own wheels, is a completely self-contained, self-propelled machine. But a town house in the twentieth century is by no means complete within itself. A surfaced road must be brought to its frontage: it must be connected with networks of water, power, sewerage and communication. For the inhabitants of the house, shops must be built nearby; a school is needed and recreation areas must be accessible. The individual house is itself only a part of a larger whole. The "end-product" is not the individual housing unit, but the total community—complete with all the services and utilities which enable urban householders to live as we are used to living.

... only a part of a larger whole ..

From this long-term operating point of view, we must regard any individual houses or groups of houses that do not fit into a community system as wasteful items in our housing program. With a tremendous construction task on our hands, we cannot afford to provide streets, services and schools for isolated houses scattered widely over the raw land outside urban areas. Unfortunately this sporadic way of building continually threatens to develop as low-income home-builders, ever seeking lower costs, are tempted afield by cheap land and the lower tax rates of semi-rural municipalities. But the demands for schools, serviced streets and other amenities inevitably follow soon after, accompanied too often by the welfare problems of families so hard-pressed by economic circumstances. People of modest income almost always have to build outside the developed area of the city or town. The inconvenient location of their home makes it a vulnerable asset in times of financial insecurity. Lack of community organization in such marginal areas encourages a devil-may-care attitude to public property, and this soon shows in a depressing and depreciating environment.

In projecting our housing program it would perhaps have been better if *less* emphasis had been placed upon the raw numbers of housing units required, and *more* attention had been directed to what we really need to build: a considerable number of entirely new *communities*. This presentation of the housing program would have encouraged our municipal planning authorities to make provision in their schemes for the comprehensive development of new residential areas. Luckily, there is still time to plan for most of our housing program.

Over the next ten years it will be necessary for the metropolitan cities of Canada to add about 20 per cent to their present amount of housing accommodation. Greater Toronto, for instance, which now has about 210,000 housing units, will need to raise this number to about 260,000 by 1957. (These new houses will be about equal to those now in a city the size of Winnipeg.) But if we simply scatter 50,000 housing units around the outskirts of a city, though we may *numerically* fulfil our program, we shall by no means solve our problem. We must produce an adequate number of component parts, and assemble these parts into fully functioning *communities*. The housing units, utilities, streets, schools and other components of an operating community must be put together in a rational way. The production planning and timing by which each new community is brought to completion and put into operation is an essential factor in the speed and economy with which our housing program will be fulfilled.

A good deal of study of community organization has in recent years been directed towards determining the useful size of an operating residential unit or "neighbourhood". About 2,000 households appear to provide a well-balanced community. This number of households normally contains about the number of children required to support a school of manageable proportions, and buys enough to keep a diversified group of retail stores in business. It is big enough to require its
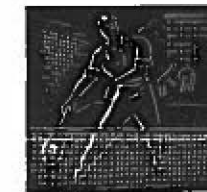
what makes a
neighbourhood?

housing
Abundance of sunlight, unsoiled air, well-drained ground, (if possible) a pleasant view; exclusion of through traffic, noise, danger.

schooling
Safe foot-paths leading to well-equipped school buildings and playgrounds, not more than $\frac{3}{8}$ mile (primary) or $\frac{3}{4}$ mile (secondary) from any family they are to serve.

recreation
Central neighbourhood hall, incorporating branch library, health clinic and dressing rooms, surrounded by open space for tennis, bowling, baseball, etc.
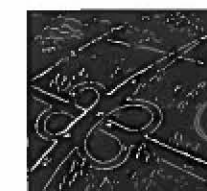

worship
Sites for churches in central part of neighbourhood.

buying
Separate but accessible neighbourhood shopping centre, reached by same safe footpaths as go to schools, neighbourhood hall and churches.

traffic
Light, economical roads for use of inhabitants and for their deliveries *only*, separated from foot-paths, and leading to expressways to reach remainder of city.

neighbourhoods for living in

NEW ZEALAND ➡

Proposed housing development at Trentham. A neighbourhood laid out as a unit: community centre, shops and sports area are grouped centrally. They can be reached by foot-paths which are separated from the roadways, and arranged for a minimum of road-crossing. The single road that goes across the centre of the area to serve the public buildings is skilfully placed so as to be inconvenient to intruding motorists who might wish to cut *through* this quiet residential area. Nursery schools are dispersed to reduce their walking distance from any house.
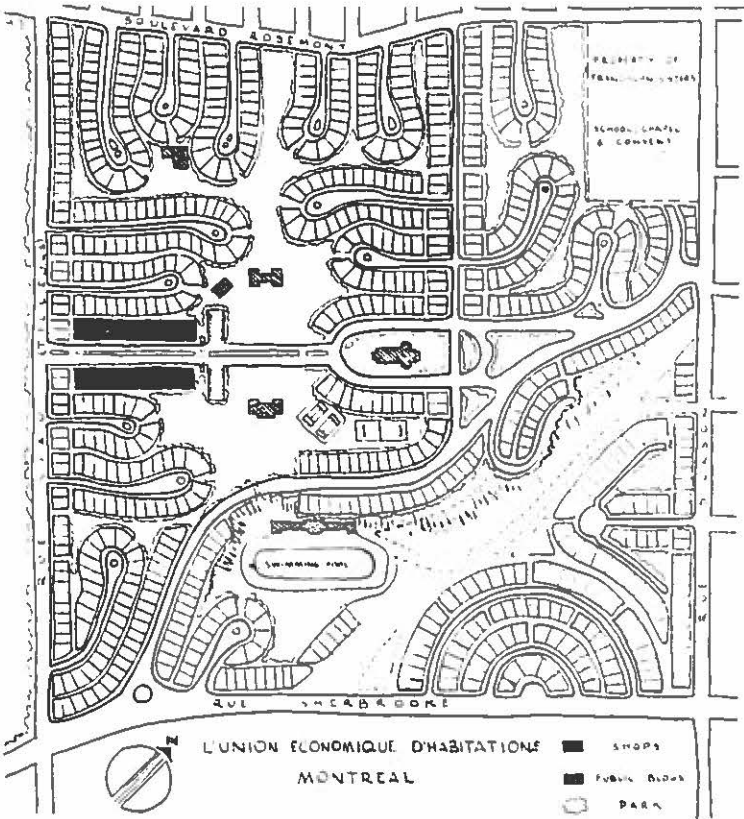
⬅ MONTREAL

L'Union Economique d'Habitations. The final of several schemes for one of the most highly integrated neighbourhoods built in this country. The extensive amount of open space in the centre of the area, which surrounds the schools and church and leads to the shops, is the result of a liberal use of 'cul-de-sac' streets for access from the boundary roads to the houses. This pattern of neighbourhood layout has several good results: a saving in pavement, isolation from noisy and dangerous traffic, freedom of pedestrian movement for mothers and children who spend most of their lives within the area. The serpentine road leading to the southwest corner follows the brow of a hill, but does not impede walking from the lower public space to the upper; the foot-path passes *under* the road.

⬅ ENGLAND

Portion of the proposed extension to the Borough of Nuneaton. Advantage is taken of the slopes down to a small stream and its tributary. The access roads on which most of the single houses face are proof against motorists who don't belong here, and so don't care for those who do. Again the school and playgrounds are given lots of room in the central open space. The view from many of the houses is on to this open space; the busy streets surrounding the neighbourhood are out of sight of those who live within it. This is planning for the inhabitants.
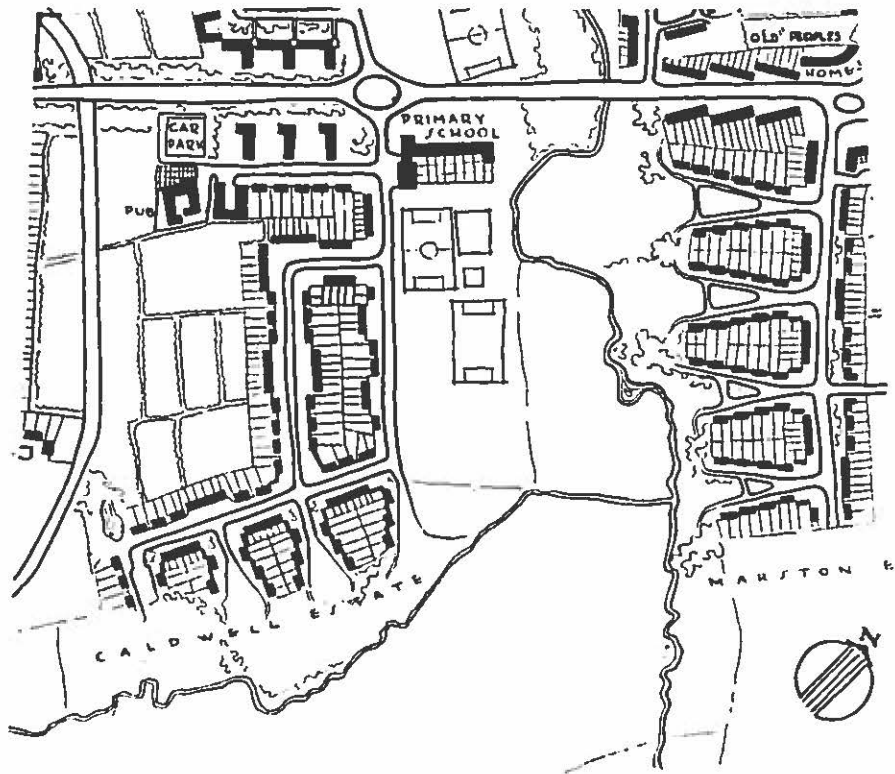
REGINA ➡

Wartime Housing Project No. 5. Set within a larger district of typical rectangular blocks, this project contains enough open space and local public building sites to serve the surrounding neighbourhood, as well as its own tenants. The small loops giving access to the houses flow from a central ring-road rather than from the boundary, as they do in the other examples. But the exits from the area to the surrounding city streets are placed to discourage unwanted through traffic. Neighbourhood planning pays partial dividends, even on a limited site within a conventional district.
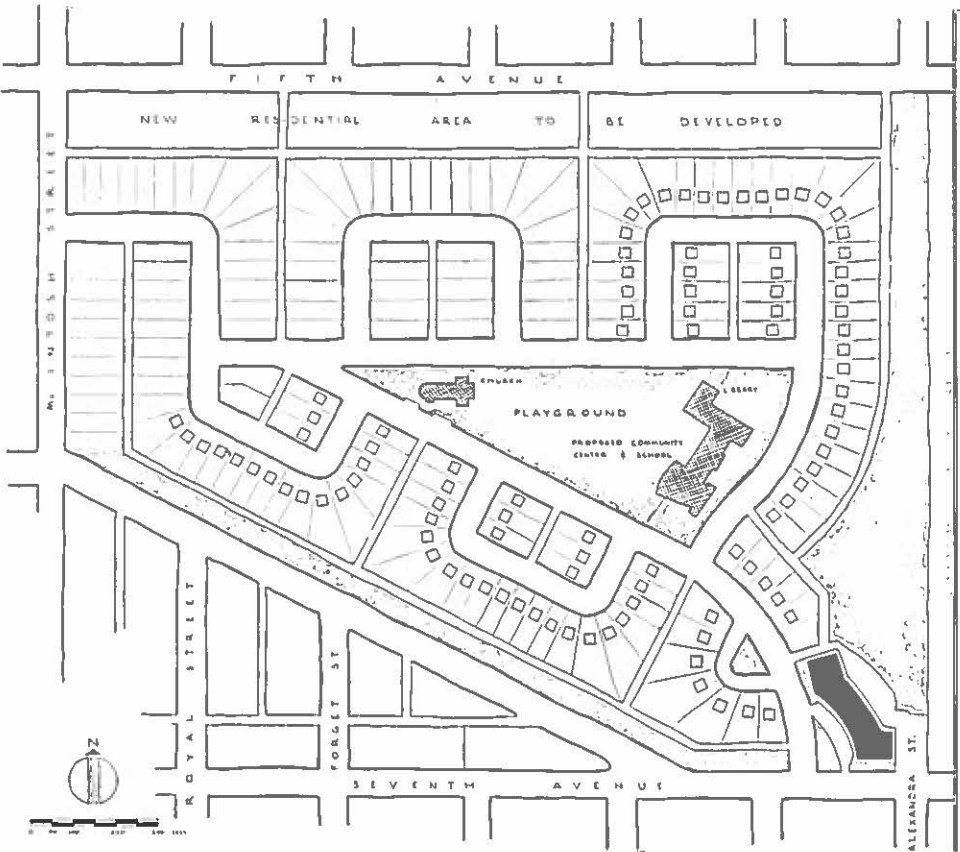
own recreation area and not so big as to make its own shops, schools and other community services too distant from any house in the neighbourhood. On this basis it may be said that an urban area with a housing program of, say, 25,000 housing units requires to plan about ten distinct communities each containing about 2,000 housing units. (Some of the required houses will go to fill out existing incomplete community areas so that not the whole number of additional houses would have to be included in the plans for new neighbourhoods.)

Our primary objective for planning authorities throughout the country is now to define the sites of these new communities, and to control urban development so that each of our new neighbourhoods may be brought into full operation in a prompt, orderly and balanced fashion. Each new neighbourhood will require about 250 acres of land and will have to be planned as
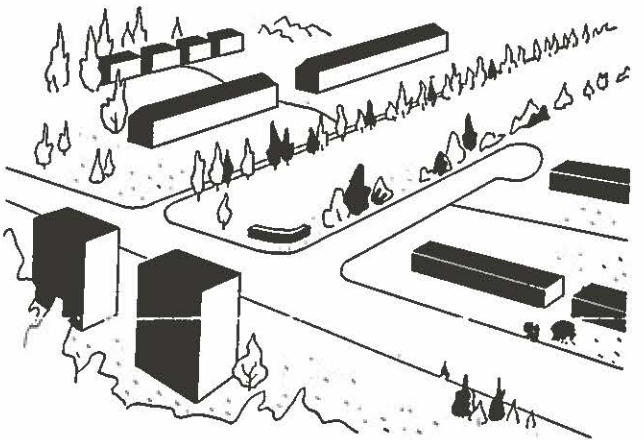
a distinct entity for its 2,000 households and its population of about 7,500 persons. In metropolitan areas comprising several municipalities, the location of each neighbourhood will probably have to be determined by a metropolitan planning authority with an eye to the regional disposition of industry, major open spaces and the main arterial structure of highway system. The detailed planning of each community, the subdivision of land, street layout, allocation of sites for schools, shopping centres and local parks may well be done by the local municipal planning board. The exact distribution of responsibilities in the planning process will inevitably differ from province to province. The clarification and placing of these responsibilities is itself the function of the provincial department that has jurisdiction over planning matters.

Are our planning boards actually working on the detailed accommodation of our housing program, representing as it does the most essential planning task of the next decade? It is the business of the public to satisfy ourselves that this essential operation is being properly performed because, if the creation of new housing areas is not being done in the most efficient and economical manner, we the public will pay. We shall have to pay in two ways. First of all we shall not get the houses we need as quickly as we might. Second-

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ly, we shall have to pay for the financial loss arising out of the need for servicing scattered housing units which are not component parts of planned neighbourhoods.

Community Planning would be a dull business indeed if it could be justified only on the inhuman grounds of production efficiency. The very thing we must try at all costs to avoid is the mass production of rows of identical dwellings in endless uniformity. But this is exactly what threatens us, so long as the housing target is conceived merely in terms of *numbers* of dwellings. It is only when the building of houses is visualized as the fulfilment of our community patterns that there begins to emerge the element of civic design. In any community there are many different kinds of household, requiring as many different kinds of dwelling: when these are put together in some recognizable arrangement—rather than scattered in the familiar, meaningless assortment—then a residential area comes to possess beauty and dignity. Here a group of tall apartment houses form a climax to a vista. There two rows of terrace housing flank an open space. Yonder a group of single-family houses clusters around some tall trees. The neighbourhood doesn't occur then by accident; it *belongs* together because it serves its inhabitants well.

Efficiency is another term for economy of effort. Economy of effort leads to simple, straightforward solutions to problems of design. Efficiency and beauty have for one another a natural affinity.

In brief, we shall attain our housing target only if we are ready to learn from modern production-line industry. At the same time, we must realize that houses are not wanted in a *line*: just how we do want to arrange them poses the problem of *planning*. So sound neighbourhood planning is not merely essential to reach the quantitative housing target—it is the key to avoid mass wastage of housing, and to yield neighbourhoods that are made for *living* in.

"The modern dwelling house is a unit in a neighbourhood community. To design a house that will accommodate all the needs of modern living, one must also design the community. To build such a community effectively and cheaply, one must do it, where possible, in a single operation from the purchase of the raw land to the final plan and construction of its shops, schools, playgrounds, and other communal facilities.

"When one considers such essentials of good housing as sunlight, air, gardens, play space, recreation facilities, streets isolated from noisy through-traffic, access to parks or open country, it is plain that only a united and comprehensive attack upon the entire problem of housing offers a path of genuine advance."

Clarence Stein and Catherine Bauer

COMMUNITY PLANNING ASSOCIATION OF CANADA

APPLICATION FOR MEMBERSHIP

(Please type or print in block letters)

1. NAME:
   Mr. ☐
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   Miss ☐ . . . .
   Organization ☐   (First names—   (Last Name)
                   please underline that commonly used)

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                                           (For organization state purpose and number of members)

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B. MY SCHOOLING WAS AT THESE PLACES: . . . .

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6. THE FOLLOWING PERSONS OR ORGANIZATIONS MAY ALSO BE INTERESTED IN JOINING:

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layout for living

- planning for half a million houses

- what makes a neighbourhood?